

# REEXAMINATION CERTIFICATE ISSUED UNDER 35 U.S.C. 307

THE PATENT IS HEREBY AMENDED AS  
INDICATED BELOW.

Matter enclosed in heavy brackets **[ ]** appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in *italics* indicates additions made to the patent.

AS A RESULT OF REEXAMINATION, IT HAS  
BEEN DETERMINED THAT:

The patentability of claims 9-16 is confirmed.

Claims 4, 7, and 8 are cancelled.

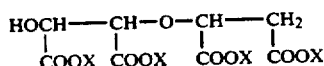
Claims 1-2, 17 and 19 are determined to be patentable  
as amended.

Claims 3, 5-6, 18 and 20, dependent on an amended  
claim, are determined to be patentable.

New claims 21-27 are added and determined to be  
patentable.

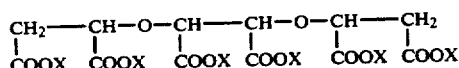
1. An ether carboxylate composition suitable for use  
as a builder in detergent formulations, said composition  
**[comprising]** *consisting essentially of*

(a) from about **[1% to 99%]** *20% to 97%* by weight  
of a tartrate monosuccinate component of the  
structure:



wherein X is H or a salt-forming cation; and

(b) from about **[1% to 99%]** *3% to 80%* by weight  
of a tartrate disuccinate component of the struc-  
ture:



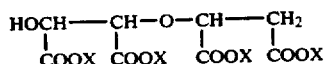
wherein X is H or a salt-forming cation;

*the weight ratio of the tartrate monosuccinate component  
to the tartrate disuccinate component ranging from about  
89:11 to 44:56.*

2. A composition according claim 1 wherein the  
weight ratio of tartrate monosuccinate component to  
tartrate disuccinate component ranges from about  
**[97:3 to 20:80]** *82:18 to 50:50.*

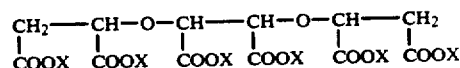
17. A detergent composition comprising from about  
0.5% to 98% by weight of a surfactant and from about  
2% to 99.5% by weight of a builder component **[se-  
lected from the group]** *consisting essentially of*

(a) tartrate monosuccinic acid, or salt thereof, of the  
structure



wherein X is H or a salt-forming cation; and

(b) tartrate disuccinic acid, or salt thereof, of the  
structure;



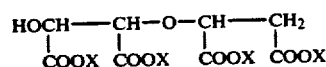
wherein X is H or a salt-forming cation, **[or**

(c) a combination of said tartrate monosuccinic acid  
or salt and said tartrate disuccinic acid or salt,] in  
a weight ratio of tartrate monosuccinic acid or salt,  
to tartrate disuccinic acid or salt, of from about  
**[97:3 to 20:80]** *89:11 to 44:56.*

19. A laundry additive composition comprising

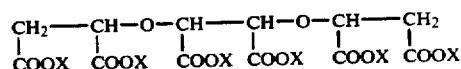
(A) from about 2% to 99.5% by weight of a builder  
component **[selected from the group]** *consisting  
essentially of*

(i) tartrate monosuccinic acid, or salt thereof, of the  
structure



wherein X is H or a salt-forming cation; and

(ii) tartrate disuccinic acid, or salt thereof, of the  
structure



wherein X is H or a salt-forming cation; **[or**

(iii) a combination of said tartrate monosuccinic  
acid or salt and said tartrate disuccinic acid or  
salt,] in a weight ratio of tartrate monosuccinic  
acid or salt, to tartrate disuccinate acid or salt, of  
from about **[97:3 to 20:80]** *89:11 to 44:56;* and

(B) from about 0.5% to 98% by weight of a laundry  
adjuvant selected from the group consisting of  
surfactants, additional detergent builders, chelating  
agents, enzymes, fabric whiteners and brighteners,  
sudsing control agents, solvents, hydrotropes,  
bleaching agents, bleach precursors, buffering  
agents, soil removal/anti-redeposition agents, soil  
release agents, fabric softening agents, perfumes,  
colorants, opacifiers and combinations of said laun-  
dry adjuvants.

21. A process for preparing a combination of ether car-  
boxylates useful as a detergent builder, which method  
comprises

(a) forming an aqueous reaction mixture from about  
40% to 60% by weight of both calcium and monova-  
lent cation salts of maleic acid and tartaric acid, said  
mixture corresponding to the overneutralized mixture  
which is formed by combining:

(i) maleic and tartaric acids in a maleic to tartaric  
molar ratio of from about 0.5:1 to about 8:1;

(ii) a source of calcium cations in an amount such that  
the molar ratio of calcium to tartaric acid ranges  
from about 0.5:1 to 2.0:1 with the ratio of moles of  
calcium to total moles of maleic and tartaric acid  
being less than 1; and

(iii) a neutralizing agent comprising an hydroxide of a  
monovalent cation in an amount such that the ratio  
of moles of monovalent cation to moles of maleic  
acid plus moles of tartaric acid minus moles of  
calcium ranges from about 2.1:1 to 3.8:1 and